AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A wiring material for forming wiring on a substrate by causing coalescence of conductive ~~particles~~nanoparticles through heating, comprising:

a first layer containing conductive ~~particles~~nanoparticles and having a binder function to be adhered to the substrate; and

a second layer containing conductive ~~particles~~nanoparticles and laminated on the first layer, wherein

the first layer and the second layer are coupled by coalescence between the conductive ~~particles~~nanoparticles of the first layer and the conductive ~~particles~~nanoparticles of the second layer through heating ~~at a temperature below a melting point of a bulk material of the conductive particles of the first layer, and below a melting point of a bulk material of the conductive particles of the second layer~~.

2. (Currently Amended) The wiring material as set forth in claim 1, wherein:

the conductive ~~particles~~nanoparticles of the first layer and the conductive nanoparticles of the second layer are metal ~~particles~~nanoparticles.

3. (Currently Amended) The wiring material as set forth in claim 1, wherein:

the conductive ~~particles~~nanoparticles of the first layer and the conductive nanoparticles of the second layer are made of a conductive material, which enables the conductive ~~particles~~nanoparticles to be ~~easily~~ coalesced with each other through heating at a temperature below a melting point of a bulk material of the conductive material.

4. (Currently Amended) The wiring material as set forth in claim 3, wherein:

the conductive ~~particles~~nanoparticles of the first layer and the conductive nanoparticles of the second layer are made of a conductive material with a diameter of not more than 100nm.

5. (Original) The wiring material as set forth in claim 4, wherein:

the conductive material is an Ag.

6. (Currently Amended) The wiring material as set forth in claim 1, wherein:

the first layer includes the conductive ~~particles~~nanoparticles with lower concentration than that of the conductive ~~particles~~nanoparticles of the second layer.

7. (Original) The wiring material as set forth in claim 1, wherein:

the first layer includes a main component same as a main component of the substrate.

8. (Original) The wiring material as set forth in claim 7, wherein:

the main component contains an alkoxyl group.

9. (Original) The wiring material as set forth in claim 7, wherein:

the main component is an ethoxy silane.

10. (Currently Amended) A wiring substrate, comprising:

a first layer containing conductive particles and adhered to a substrate; and

a second layer operating as a wiring layer made of a conductive material and laminated on the first layer,

the conductive particles of the first layer and the conductive material of the second layer are coalesced with each other at a border of the first layer and the second layer so as to form an anchor member for ~~unifying~~ uniting the first layer and the second layer, said coalescing is carried out through heating ~~at a temperature below a melting point of a bulk material of the conductive particles of the first layer, and below a melting point of a bulk material of the conductive particles of the second layer~~.

11. (Original) The wiring material as set forth in claim 10, wherein:

the conductive particles are metal particles, and the conductive material is a metal material, and the anchor member is made of metal grains created from the metal particles and the metal material.

12. (Original) The wiring material as set forth in claim 11, wherein:

the metal grains are created by metallic bond of the metal particles and the metal material.

13. (Withdrawn) A manufacturing method of a wiring substrate, comprising the steps of:

(a) forming a first layer on a substrate, the first layer containing conductive particles and having a binder function to be adhered to the substrate;

(b) forming on the first layer formed in the step (a) a second layer containing conductive particles; and

(c) subjecting the first and second layers laminated to each other to heat processing, so as to coalesce the conductive particles of the first layer and the conductive particles of the second layer at a border of the first and second layers.

14. (Withdrawn) The manufacturing method of a wiring substrate as set forth in claim 13, wherein:

the step (a) for forming the first layer is carried out by coating the substrate with a first solution containing a material of the first layer, and then baking the substrate,

the step (b) for forming the second layer is carried out by coating the first layer with a second solution containing a material of the second layer, and then baking the first layer which has been supplied with the second solution,

the first solution and the second solution using a same solvent.

15. (Currently Amended) A display panel having a driving circuit for driving a display section, comprising:

a wiring substrate made up of a first layer containing conductive particles and adhered to a substrate, and a second layer operating as a wiring layer made of a conductive material and laminated on the first layer, the conductive particles of the first layer and the conductive material

of the second layer being coalesced with each other at a border of the first layer and the second layer so as to form an anchor member for ~~unifying~~ uniting the first layer and the second layer, said coalescing is carried out through heating ~~at a temperature below a melting point of a bulk material of the conductive particles of the first layer, and below a melting point of a bulk material of the conductive particles of the second layer~~.

16. (Currently Amended) A fine particle thin film material for forming thin films on a substrate by causing coalescence of conductive particles through heating, comprising:

a first layer containing conductive particles and having a binder function to be adhered to the substrate; and

a second layer containing conductive particles and laminated on the first layer, wherein

the first layer and the second layer are coupled by coalescence between the conductive particles of the first layer and the conductive particles of the second layer through heating ~~at a temperature below a melting point of a bulk material of the conductive particles of the first layer, and below a melting point of a bulk material of the conductive particles of the second layer~~.

17. (Currently Amended) The fine particle thin film material as set forth in claim 16, wherein:

the conductive particles of the first layer and the conductive particles of the second layer are metal particles.

18. (Currently Amended) The fine particle thin film material as set forth in claim 16, wherein:

the conductive particles of the first layer and the conductive particles of the second layer are made of a conductive material, which enables the conductive particles to be ~~easily~~ coalesced with each other through heating.

19. (Currently Amended) The fine particle thin film material as set forth in claim 18, wherein:

the conductive particles of the first layer and the conductive particles of the second layer are made of a conductive material with a diameter of not more than 100nm.

20. (Original) The fine particle thin film material as set forth in claim 19, wherein:

the conductive material is an Ag.

21. (Original) The fine particle thin film material as set forth in claim 16, wherein:

the first layer includes the conductive particles with lower concentration than that of the conductive particles of the second layer.

22. (Original) The fine particle thin film material as set forth in claim 16, wherein:

the first layer includes a main component same as a main component of the substrate.

23. (Original) The fine particle thin film material as set forth in claim 22, wherein:

the main component contains an alkoxyl group.

24. (Original) The fine particle thin film material as set forth in claim 22, wherein:

the main component is an ethoxy silane.

25. (Currently Amended) A substrate having thin film layers, comprising:

a first layer containing conductive particles and adhered to a substrate; and

a second layer operating as a wiring layer made of a conductive material and laminated on the first layer,

the conductive particles of the first layer and the conductive material of the second layer are coalesced with each other at a border of the first layer and the second layer so as to form an anchor member for ~~unifying~~ uniting the first layer and the second layer, said coalescing is carried out through heating ~~at a temperature below a melting point of a bulk material of the conductive particles of the first layer, and below a melting point of a bulk material of the conductive particles of the second layer~~.

26. (Original) The substrate having thin film layers as set forth in claim 25, wherein:

the conductive particles are metal particles, and the conductive material is a metal material, and the anchor member is made of metal grains created from the metal particles and the metal material.

27. (Original) The substrate having thin film layers as set forth in claim 26, wherein:

the metal grains are created by metallic bond of the metal particles and the metal material.

28. (Withdrawn) A manufacturing method of a substrate having thin film layers, comprising the steps of:

(a) forming a first layer on a substrate, the first layer containing conductive particles and having a binder function to be adhered to the substrate;

(b) forming on the first layer formed in the step (a) a second layer containing conductive particles; and

(c) subjecting the first and second layers laminated to each other to heat processing, so as to coalesce the conductive particles of the first layer and the conductive particles of the second layer at a border of the first and second layers.

29. (Withdrawn) The manufacturing method of a substrate having thin film layers as set forth in claim 28, wherein:

the step (a) for forming the first layer is carried out by coating the substrate with a first solution containing a material of the first layer, and then baking the substrate,

the step (b) for forming the second layer is carried out by coating the first layer with a second solution containing a material of the second layer, and then baking the first layer which has been supplied with the second solution,

the first solution and the second solution using a same solvent.

30. (Currently Amended) The wiring material as set forth in claim 1, wherein the coalescence between the conducting particles corresponds to uniting pairs of metallic ~~bonding between the~~ particles.

31. (Previously Presented) The wiring material as set forth in claim 1, wherein the conductive particles in the second layer are coalesced through heating to form a wiring layer.

32. (Previously Presented) The wiring material as set forth in claim 1, wherein a size of the conductive particles of the first layer and a size of the conductive particles of the second layer are such that a melting point of the conductive particles of the first layer and a melting point of the conductive particles of the second layer are lowered from that of a bulk state of the same material of the respective particles.

33. (New) The wiring material as set forth in claim 3, wherein:

the conductive particles of the first layer and the conductive particles of the second layer are made of the same conductive material.

34. (New) A wiring material comprising:

a first layer having a binder function and adhered to a substrate; and

a second layer, laminated on the first layer, which serves as a conductor,

wherein the second layer has conductive protrusions that extend from a surface of the second layer into the first layer,

wherein the protrusions include a plurality of conductive particles that are bonded to one another.

35. (New) The wiring material as ser forth in claim 34, wherein:

the plurality of conductive particles are partially bonded to one another.

36. (New) The wiring material as set forth in claim 34, wherein:

the plurality of conductive particles are metallic-bonded to one another.

37. (New) The wiring material as set forth in claim 34, wherein:

the plurality of conductive particles are partially fused to one another.

38. (New) The wiring material as set forth in claim 34, wherein:

the plurality of conductive particles are nanoparticles.

39. (New) The wiring material as set forth in claim 34, wherein:

each of the plurality of conductive particles has a particle diameter of not more than 100nm.